NETSTOR

TurboBox™

Quick Installation Guide

External PCIe Slot Expansion Box

Version 1.0

NA211A External PCIe Slot Expansion Box

1. Overview

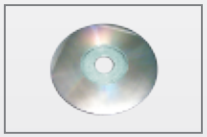
Thanks for purchasing Netstor's products. TurboBox is designed to expand PCIe slots for Desktop computers or Laptop computers. This user manual will help you setup the TurboBox.

2. Package Checklist

Before installing this unit, verify that package contains the following items.

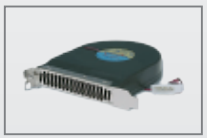
A TurboBox x1

C Power Cord x1



D User manual CD x1

B Carry Bag x1



E Blower

Optional combinations

One of the following optional host adaptors must be chosen in order to attach NA211A to your Desktop or Laptop computer.

F Turbo PCI-Express

PCI-Express Desktop Adaptor

PCI-e 4x to PCI-e 4x cable, 1.5M

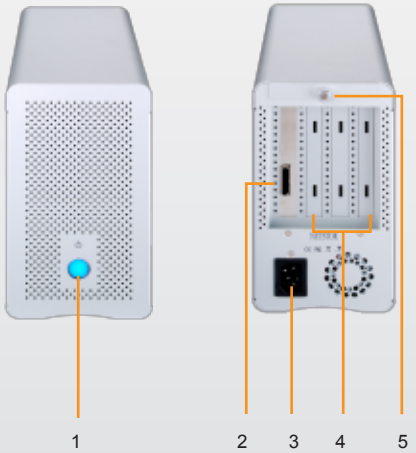
G Turbo ExpressCard

ExpressCard 34 Laptop Adaptor

PCI-e 4x cable to Multilane cable, 1M

Notify your sales representative if any of the above items are missing or damaged.

3. Description of Panel Layout



1. Power Switch Button and LED

Blue – Power On

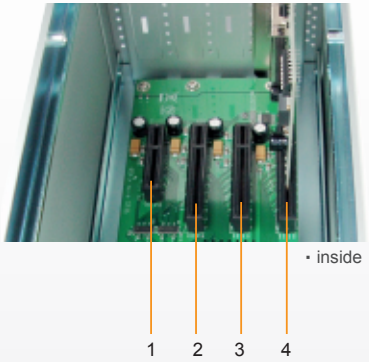
Note: To Power on/off the TurboBox, press the button for 3 seconds.

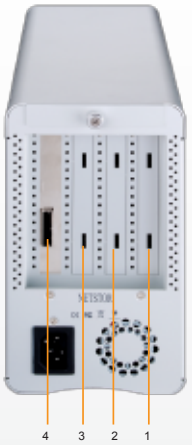
2. PCIe x4 connector for host connection

3. Power Cord Receptacle

4. PCIe Expansion

5.Thumbscrew to loosen/lock the top cover





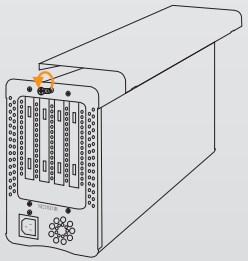
Slot1 : PCIe x4 slot
Slot2 : PCIe x8 slot
Slot3 : PCIe x8 slot
Slot4 : Target Adaptor Card
(already fixed in the box)

To Desktop computers, the speed of the PCIe expansion slots will run at PCIe x4.
To Laptop computers, the speed of the PCIe expansion slots will run at PCIe x1.

4. Installation of PCI Express add-on card into NA211A

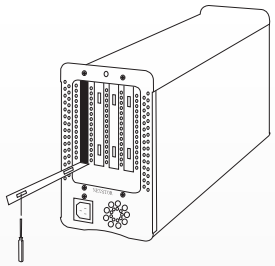
Before the following installing procedure, disconnect the NA211A from the power source to prevent electric shock or add-on card damage.

1. Loosen the thumbscrew and remove the top cover of NA211A.



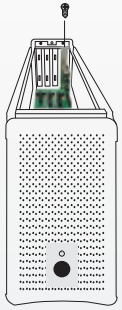
Step 1

2. Bend one of metal slots on the rear panel of NA211A for preparation the installation of PCI Express card (! Here we recommend that using the screwdriver to avoid the injury).



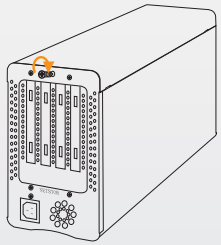
Step 2

3. Insert the PCI Express add-on card into the slot and screw then well.



Step 3

4. Put the top cover back and lock them well.



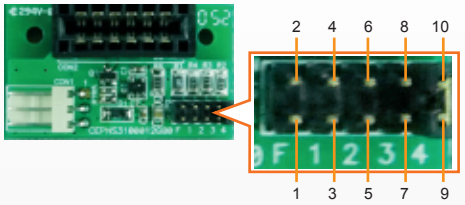
Step 4

5. Connect the power cord and one of the end PCI Express x4 cable at the rear of the enclosure.

PCIe Raid control card or high-end Capture card will generate a lot of heat that causes the high temperature inside of TurboBox. We strongly recommend you to install the enclosed blower to help the ventilation when you install those cards

5. Fan Speed Adjustment

You are able to adjust the speed of 80×80×25 mm cooling fan on TurboBox NA211A. To adjust the fan speed, pull the 80×80×25 mm cooling fan out, and you will see five sets of jumpers labeled with F, 1, 2, 3, and 4 respectively from left to right on the board. The default setting is the jumper being placed over pin 9 and pin 10 for label 4, meaning the slowest speed of fan. If the jumper is placed over pin 1 and pin 2 for label F, the fan will spin at full speed. From label 1 to label 3, the fan speed decreases. If all of the pins are open (meaning no jumper is placed over the pins), the fan will not spin.



6. Host Adaptor Installation and cable connection

• For Laptop

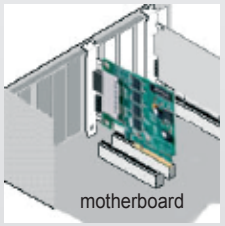
a. Connect the end of PCI Express cable with screw connector to Netstor Turbo ExpressCard host adaptor.

b. Insert the Turbo ExpressCard host adaptor into the ExpressCard slot on your laptop computer.

• For Desktop

! Before the following installing procedure, disconnect the Computer from the power source to prevent electric shock or add-on card damage.

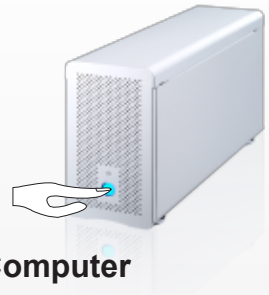
a. Install Netstor Turbo PCI-Express host adaptor into an available PCI Express slot x4 (x8/x16 Compatible) in your Desktop computer. Secure with retaining screw.



b. Connect the other end of the PCI Express x4 cable to the Turbo PCI Express host adaptor.

7. Power on the TurboBox

Power on the TurboBox by pressing the Power Switch button 3 seconds.



8. Power on the Computer

In order to let the Computer BIOS identify and assign resources appropriately. Make sure to power on Netstor TurboBox first and then the Computer.

There is no software required on Netstor TurboBox for proper configuration by Computer OS; however your operating system may prompt for software or drivers required for the PCI Express Card installed in TurboBox. Please follow the instruction included with your PCI Express add-on card.

9. Remove the TurboBox and Power Off

• For Removing the NA211A from a laptop:

a. Double click the safely Remove Hardware icon in the bottom right corner of your laptop screen.
b. Power Off the TurboBox

• For Desktop Computer:

a. Power Off the Computer
b. Power Off the TurboBox

10. Verify Installation

• For Windows operating system

When you want to verify a successful installation on Windows operating system, go to **My Computer** and right click the icon of **My Computer**.
Select **Manage** from the menu (see figure 9-1), and click **Device Manager** in the left side of window of Computer Management (see figure 9-2).

Figure 9-1

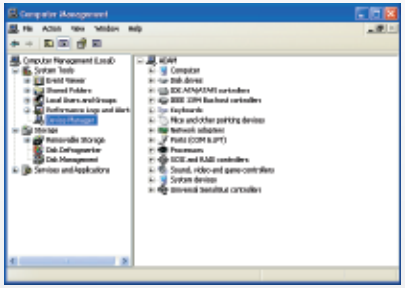
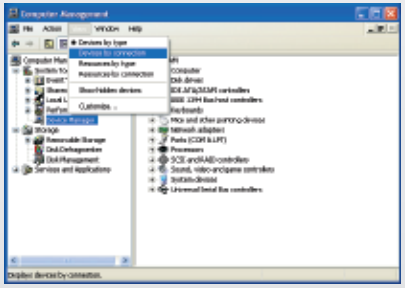


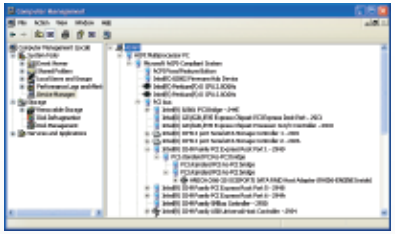
Figure 9-2

And then click **View** from the top side of the window, and select **Devices by connection**.



Open ACPI Multiprocessor PC, open Microsoft ACPI-Compliant System, open PCI bus, click PCI Express Root Port, click PCI standard PCI-to-PCI bridge, and click again PCI standard PCI-to-PCI bridge. And then you will find your third party PCIe card under PCI standard PCI-to-PCI bridge.

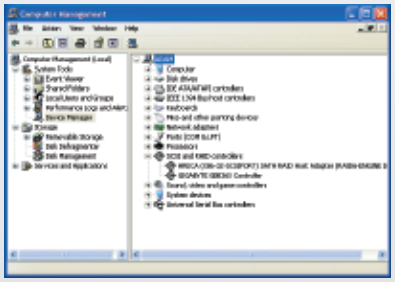
Note: You may see PCI Express Root Ports with different ending numbers such as 2940, 2948, and 294A. These different ending numbers indicate different PCIe slots on motherboard.



If there is no third party PCIe card plugged in TurboBox, you will see two PCI standard PCI-to-PCI bridges below the PCI Express Root Port. When the third PCIe slot (x4) on TurboBox is plugged with the third party PCIe card, three PCI standard PCI-to-PCI bridges will be shown below the PCI Express Root Port.

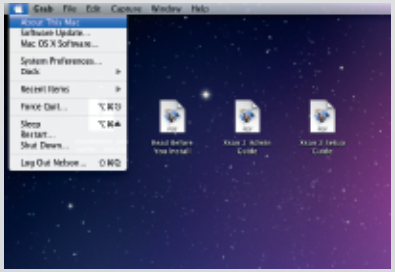
Note: If there is a yellow exclamation mark in front of the third party PCIe card under PCI standard PCI-to-PCI bridge, it means the third party PCIe card is without the driver, so you have to install its driver on operating system to make it work with the computer.

After the driver is installed on operating system, the third party PCIe card will work properly with the computer via TurboBox, and the name of the third party PCIe card will be shown under PCI standard PCI-to-PCI bridge; furthermore, the name of the third party PCIe card will also be shown in the list of Device Manager.



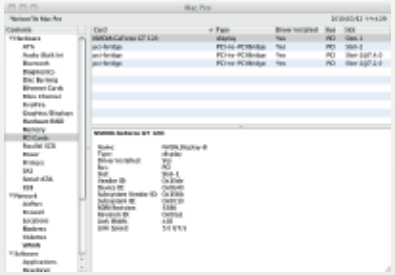
• For Mac OS X

To verify a successful installation on Mac OS X, select **About This Mac** under the Apple icon.

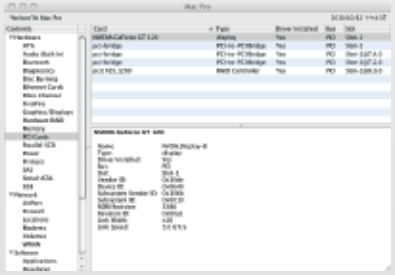


Click **More Info**... from the window.

Click **PCI Cards** from the left side of the window, and when there is no third party PCIe card plugged in TurboBox, you will see three pci-bridges that indicate three PCIe slots on TurboBox.



When a third party PCIe card is plugged in one of the PCIe slots on TurboBox, the third party PCIe card will be shown under the three pci-bridges.



When the driver of the third party PCIe card is installed on Mac OS X, your computer will begin working with the third party PCIe card on TurboBox.